

MEMORANDUM

Date: April 15, 2009
To: Kevin Mallen – Yuba County
 Matthew Gerken – EDAW
From: John Gard – Fehr & Peers *JG*

Subject: *Initial Findings of Traffic Evaluation for 2030 General Plan Land Use Alternatives*
RS07-2442

This memorandum presents our initial findings of future transportation conditions in Yuba County associated with General Plan Land Use Alternatives A and B. This memo begins with a summary of each alternative's land uses and follows with an assessment of vehicle trips attributable to those land uses. Finally, the effects of these trips on roadways in Yuba County are described.

Land Use Totals

Table 1 shows the substantial increase in residential and non-residential land use associated with each land use alternative.

TABLE 1: LAND USE GROWTH IN YUBA COUNTY				
Land Use Type	Existing	Existing + Approved	General Plan Alternative A	General Plan Alternative B
Dwelling Units	24,864 du's	59,166 du's	85,183 du's	72,302 du's
Non-Residential	3.7 million sq. ft.	12 million sq. ft.	30.7 million sq. ft.	28.2 million sq. ft.
Notes: Each General Plan alternative includes existing and approved uses plus the added increment of the specified alternative. Non-residential includes all retail, office, industrial, PQP, and related uses.				

The California Department of Finance (DOF) projects Yuba County to have 137,300 people in 2030, which equates to approximately 48,000 total households. Approved land uses alone account for over 59,000 total households. Alternatives A and B go even further beyond the DOF projections, implying an inconsistency between the GP horizon year (2030) and the assumed land use absorption by that time.

Vehicle Trips

Table 2 provides a comparison of the gross vehicle trips generated by the existing, approved, and GP Alternative A and B land uses. This table is intended to convey the magnitude of new trips generated by the approved uses and the Alternatives A and B growth increments.

TABLE 2: GROSS TRIP GENERATION ESTIMATES				
	Existing	Existing + Approved	General Plan Alternative A	General Plan Alternative B
Daily Trip Generation	328,000	902,000	1,379,000	1,197,000
Source: Fehr & Peers, 2009				

The data in Table 2 yields several important conclusions:

- The approved uses will add a substantial number of new vehicle trips to Yuba County roadways over what exists today. Given that many of the approved uses are entitled, the County has little ability to influence the location and types of these land uses.
- Although Alternative B generates 180,000 fewer trips per day than Alternative A, the total number of trips generated is still substantial. This suggests that major roadway improvements, beyond those currently being contemplated by the County, will be needed.

Preliminary Traffic Forecasts

The land uses associated with each General Plan land use alternative were entered into the Yuba County travel demand model. Table 3 shows preliminary average daily traffic (ADT) forecasts for selected freeways and major county roads. These traffic forecasts assume the planned roadway improvements in the County (PLSP/NASA and ELSP road fee programs, Countywide CIP improvements, Yuba River Parkway, and Wheatland bypass).

Table 3 shows that substantial growth in traffic is expected on most state highways/freeways and major County roads for both General Plan land use alternatives. It is also important to note that the majority of the traffic volume increases can be attributed to new development in Yuba County versus growth in regional through trips. It is clear from this data that this level of traffic will have major consequences for roadways in Yuba County.

- The practical capacity of a four-lane freeway is 80,000 Average Daily Trips (ADT). Based on the data in Table 3, several segments of SR 65 and SR 70 would need to be widened to six lanes, which are not currently planned. Similarly, widening of certain County roads to four or six lanes may be necessary.
- The County would need to develop a comprehensive fee program to address the infrastructure needs required by these land uses.

Should the County decide to associate its 2030 GP horizon with this level of land use, a number of challenges could result such as:

- To achieve acceptable levels of service, the proposed roadway system would need to include the widening of freeways (e.g., SR 70 to six lanes) for which right-of-way likely does not exist.
- The needed improvements are not included in SACOG's 2035 Metropolitan Transportation Plan (MTP) and as such are not part of the region's current air quality conformity plan.

Improvement projects not conforming to the MTP may be ineligible for regional or state funding, which would require greater funding from local sources.

TABLE 3: PRELIMINARY 2030 DAILY TRAFFIC FORECASTS			
Roadway Segment	Base Year Model	2030 Model With GP Land Use Alternative A	2030 Model With GP Land Use Alternative B
SR 70 across the Yuba River	72,000	115,000	108,000
Simpson Lane across the Yuba River	13,000	25,000	22,000
SR 20 west of Woodruff Lane	13,000	35,000	34,000
Yuba River Parkway south of SR 20	--	44,000	37,000
SR 70 north of the SR 65/70 junction	52,000	126,000	118,000
SR 70 south of Feather River Boulevard (S)	19,000	126,000	110,000
SR 65 north of Forty Mile Road	27,000	124,000	111,000
Feather River Boulevard south of Grand Ave.	3,000	24,000	21,000
Erle Road east of SR 70	8,000	50,000	39,000
Beale Road east of Lindhurst Avenue	12,000	36,000	29,000
Plumas-Arboga Road west of Forty Mile Road	2,000	42,000	36,000
TOTAL:	221,000	747,000	665,000
Notes:			
- Assumes planned roadways in Yuba County including Wheatland bypass, Yuba River Parkway, and Plumas-Arboga Rd. extension to SR 65.			
- Projections obtained directly from travel demand model and have not been adjusted to account for any base year model error.			

- The additional Vehicle Miles of Travel (VMT) generated by the roadway improvements would have adverse effects on greenhouse gas emissions, which is contrary to the goals of AB 32 and SB 375. This could jeopardize the County's ability to secure future discretionary funding.
- Infrastructure planning studies may identify required improvements for a 20-year planning horizon based on unrealistic land use absorption. This may result in excessively sized, high-cost facilities.

According to Table 3, Alternative B results in approximately 11 percent less traffic on Yuba County roadways when compared to Alternative A. However, traffic associated with GP Alternative B Year 2030 conditions represents about three times as much traffic as is currently on these roads. While smart growth planning can alleviate some of the traffic volume increases, the magnitude of additional land uses is so great that the need for such improvements would appear unavoidable.

Land Use Changes for Travel Demand Benefits

If the County elects to reduce the amount of new growth shown in the General Plan in order to better conform to population and employment estimates, these reductions should be targeted to provide the most benefit for travel demand. Based on our evaluation of future travel characteristics in Yuba County, it would be best to reduce the amount of new growth in areas without existing retail, commercial services, and public services. If new growth under the General Plan is focused in and around existing and planned transportation facilities and existing and planned development, this will have the most potential for VMT reduction per unit of land use removed. These types of changes will help bring the cost of transportation improvements more in line with the ability of new development to fund such improvements.